

REMARKS

Applicant has cancelled claims 1-22 and 39 and amended claims 27-28 to correct typographical errors. Additionally, Applicant has added new claims 41-53. New claims 41-53 more particularly claim novel aspects of the automatic gain control system.

New claims 41-53 are generally directed to methods and systems for indexing the gain table and determining values of the gain table. Such claimed subject matter was, in part, allowed in the parent application, albeit in the context of open loop embodiments. Support for the new claims may be found on page 7, lines 15-19, page 8, line 25 to page 9, line 26, page 12, lines 1-6, and elsewhere.

Now pending are claims 23-38 and 40-53. Applicant submits that no new matter has been added to the pending application.

Respectfully submitted,

McDONNELL BOEHNEN
HULBERT & BERGHOFF

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By: George H. Lee
George Lee
Reg. No. 39,269

APPENDIX

Applicant submits marked-up version of prior pending claims 27-28 with additions shown by underlining and deletions shown by square brackets.

27. The AGC of claim [28] 23 wherein the adder determines the error signal as the difference between the output power of the automatic gain controlled output signal and a [the] set-point reference signal.

28. The AGC of claim [29] 23 wherein the gain table is adapted with a new gain value, $G_{\text{new}}(q)$; wherein $G_{\text{new}}(q)$ is computed in accordance with the scaled output signal $P_{\text{out}}(t)$ comprising the following function:

$$G_{\text{new}}(q) = G_{\text{old}}(q) + \beta(\text{set-point} - P_{\text{out}}(t));$$

wherein β is a scaling factor $0 < \beta < 1$, the set-point is a desired reference level, $P_{\text{out}}(t)$ comprises the output power of the automatic gain controlled output signal, and $G_{\text{old}}(q)$ comprises a gain table value.